2008 - 2011 Secure Rural Schools
Public Law 110-343
Title II Project Submission Form
USDA Forest Service

Name of Resource Advisory Committee:
Project Number (Assigned by Designated Federal Official):
Funding Fiscal Year(s):

2. Project Name: Pilot Watershed Restoration Projects in Odiak Pond	**3a. State:** Alaska **3b. County(s):** Valdez-Cordova
4. Project Submitted By: Copper River Watershed Project	**5. Date:** 2/28/11
6. Contact Phone Number: (907)424-3334	**7. Contact E-mail:** kate@copperriver.org

8. Project Location:	
a. National Forest: Chugach National Forest	b. Forest Service District: Cordova Ranger District
c. Location (Township-Range-Section): Township 15S, Range 3W, Section 27	

9. Project Goals and Objectives:

Odiak Stream and Pond, located within Cordova city limits, are listed in the State of Alaska's *Catalog of Waterways Important for Spawning, Rearing and Migration of Anadromous Fishes* because they provide spawning and rearing habitat for coho salmon. The proposed "Odiak Watershed Restoration" project will provide an opportunity to test treatments in a relatively small, contained anadromous system to reduce impacts of sediments and stormwater runoff and to remove invasive plants growing in water, better preparing the USFS for managing more complex aquatic systems within Chugach National Forest.

The objectives of this grant will be to:

- √ Pilot treatments for controlling and ideally eradicating *Phalaris arundinacea* (reed canarygrass) growing in the water;
- √ Pilot the use of native plants as a biofilter to ascertain effectiveness of using biofilters on USFS land to reduce effect of erosion and stormwater runoff from parking lots and roads to improve and maintain water quality;
- √ Enhance native plant habitat to provide a local native seed source for future re-vegetation projects in Odiak Pond, throughout the community, and on Chugach National Forest;
- √ Improve fish and wildlife habitat in Odiak Pond and stream through restoration and clean-up activities;

By fulfilling all these objectives, CRWP and their partners will provide the USFS with valuable experiences and tools to apply to USFS lands for the treatment of noxious weeds in aquatic

ecosystems, re-planting native vegetation, and filtering stormwater from roads and parking lots. Furthermore, the highly visible location of Odiak Watershed in Cordova will allow all residents and visitors to the community to better understand the importance of native plants and healthy watershed ecosystems to support salmon, learn native plant alternatives to landscaping with non-native species, and recognize the role individuals play in supporting clean water and healthy communities. It is our belief that an understanding for human-nature connections in the context of Odiak Watershed will translate to enhanced connection to and stewardship of Chugach National Forest lands.

10. Project Description:

a. Brief: (*in one sentence*)

Over a three-year grant period, the CRWP proposes to improve fish and wildlife habitat in Odiak Pond through restoration, invasive plant control, and clean-up activities. CRWP will also establish a local seed source for native plants to be used in re-vegetation projects on USFS lands and use local, native plants in biofilters to determine their effectiveness as treatments for reducing effects of stormwater and erosion on USFS aquatic systems.

b. Detailed:

Odiak Pond and Stream, located within Cordova's city limits, are listed in the State of Alaska's *Catalog of Waterways Important for Spawning, Rearing and Migration of Anadromous Fishes* because these systems are being used as spawning and rearing habitat for coho salmon. Odiak Pond watershed, the area of land draining into the pond, is the largest sub-watershed in Cordova city limits, covering 139 acres. Approximately 60% of the land in the watershed is developed, with a majority defined as residential. Dirt, gravel, debris and other contaminants on the roadways and from residential areas or the community hospital are drained into Odiak's waters during frequent rain events in Cordova (Picture 1, attached).

With Alaska Department of Environmental Conservation (ADEC) support, CRWP initiated an analysis of stormwater from three major receiving water bodies in Cordova, including Odiak Pond. Initial stormwater tests indicate there are no detectable levels of aromatic or aqueous hydrocarbons. Samples were also tested for total suspended solids (TSS), but the state standard for TSS is determined based on an increase over the baseline, and no baseline had been established prior to testing. However, aerial photos over time indicate the shorelines of Odiak Pond have been changing, with the pond appearing to fill in on east side, where a major stormwater ditch drains the uphill residential and hospital area (Picture 2, attached).

The grassy field located next to the pond was formerly a landfill that was capped in the 1960s. Although there is yet to be evidence that the landfill is contributing to contamination in Odiak Pond, the City of Cordova Parks and Recreation department has expressed an interest in managing stormwater flow from the grassy field to filter water from the field before it enters the pond. Odiak Pond and the neighboring hospital property also have been identified to have reed canarygrass *(Phalaris arundinacea)* and orange hawkweed (*Hieracium aurantiacum*), two highly invasive species known to reduce native plant diversity and degrade ecosystem health. Odiak pond is the only area in Cordova where reed canarygrass is growing in water, which greatly complicates control efforts.

By developing better filtration for stormwater before it flows into Odiak Pond and removing invasive weeds, the proposed project will enhance fish and wildlife habitat while creating a valuable test site to provide USFS with tools for managing aquatic systems on USFS lands.

The following is a list of tasks to be completed over a three year period:

Task 1 (Year 1): Hydrology Assessment
CRWP will contract with an engineer to assess the hydrology of Odiak watershed. This study will provide information on the drainage basin size, sources of water, soil types, discharge rates, tidal flows when fish can pass into the system and other information that will help inform the development of strategic re-vegetation projects to reduce effects of stormwater flow on Odiak pond and stream water quality. Additional funds from other sources have been secured to assist with this task.

Task 2 (Y2): Develop stormwater vegetation filter
Using information presented in the Hydrology Assessment (Task 1), CRWP will develop a stormwater mitigation project designed to reduce the effects of stormwater run-off, in particular sediment, being carried into the pond. Planting native plants in strategic locations will create a biofilter, or natural filter, where plant roots and stem structures will help filter debris, sediment and pollutants from water carried from roadways and parking lots located within Odiak watershed.

Pairing this effort with water quality monitoring (Task 3), we will determine the effectiveness of using this natural approach to reducing the effect of sedimentation and stormwater runoff in Cordova's temperate climate. If deemed effective for the region, the USFS will be able to implement this treatment in areas around Eyak Lake and Eyak River, major sockeye salmon spawning waters and coho migration routes surrounded by large tracts of Chugach National Forest land as well as residential developments. Finding ways to reduce the effect of sedimentation and stormwater on Eyak Lake and River will ensure development does not have a negative impact on USFS land and resources within the same watershed. Furthermore, the Cordova landfill is an unlined pit next to the headwaters of Mile 18 Creek, one of the most productive coho salmon streams on the Copper River Delta. It is not known whether contaminants have leached from the landfill and contaminated the groundwater, but biofilters could be a potential treatment for trapping contaminants where the groundwater surfaces to the east. This would reduce the potential contamination of Mile 18 Creek and the complex waterways of the Copper River Delta farther downstream (Ken Hodges, USFS Biologist, personal communication, February 25, 2011).

Support from the USFS will primarily be used for replanting native vegetation and providing a final report summarizing how it was completed and recommendations for implementing the treatment on USFS lands. Other funds have been secured for actual development of the biofilter.

Task 3 (Y1-3): Monitor water and habitat quality
CRWP will use data collected during past monitoring efforts as baseline information for Odiak watershed pre-restoration efforts. This includes baseline water quality data for Odiak pond and stream collected by Cordova 7th graders (with guidance from CRWP and partners), including temperature, pH, and dissolved oxygen. Students also conducted a habitat assessment with

assistance from CRWP, the USFS, Native Village of Eyak and Alaska Department of Fish & Game to document fish, wildlife, bird and aquatic invertebrate species present in the pond ecosystem. Because the Cordova 7th grade science classes have adopted Odiak Pond, these monitoring efforts will continue beyond this grant period. During the 2010-11 school year, 7th graders will be tracking (and collecting!) the amount and types of garbage getting carried into Odiak pond and stream. These activities will continue after the restoration activities are complete to measure whether or not there is a decrease in the amount of garbage making it into this system.

CRWP started sampling stormwater in Odiak pond in 2009. As stated before, there is not enough data to determine the effects of sediments on the pond due to the need for a baseline measurement. The City of Cordova is currently helping to support continued water quality monitoring to establish this baseline, and CRWP is in the process of purchasing a tool to allow for more frequent measurements of sediments at a range of water flows. Further support is requested in order to conduct follow-up sampling after restoration and clean-up activities for the 3-year grant period.

Task 4 (Y1 -3): Habitat Enhancement Projects: Noxious Weed Pilot Treatments and Habitat clean-ups

Since Odiak Pond is the only known area to have noxious weeds actually in the pond, CRWP will work with USFS ecologists to research, develop and test treatments for noxious weeds growing in water. These efforts complement the Invasive Plant Project already funded by the USFS RAC. That grant addresses noxious weeds on land, but is not sufficient to support the time and resources necessary for developing new approaches for treating reed canarygrass already in the water.

Because reed canarygrass is already found on private lands around Cordova and can spread quickly, there is a high likelihood of it spreading to the Copper River Delta (Erin Cooper, USFS Ecologist, personal communication, February 25, 2011). By providing an opportunity to test treatments in this relatively small, contained anadromous system, the USFS will be better prepared to treat noxious plants in ponds on the Copper River Delta. Community members will be engaged when possible in these treatments, educating them on how to identify invasive plants, the importance of removing invasive plants and how to effectively eradicate these plants.

While in the field with volunteers, CRWP will also work with participants to clean-up large debris and other trash from Odiak stream and pond. All of these activities will be promoted through the local newspaper and radio stations, acknowledging the efforts of community members and partners, as well as educating listeners/readers as to individual actions we can all take to be better stewards of our natural resources.

Task 5 (Y1-3): Support and Maintain Native Plant Habitat

Working with Kate Mohatt, USFS Plant Ecologist, Cordova Middle and High School science classes, and the City of Cordova, we will enhance and maintain native plant habitat for generating seeds for placing in rehabilitated areas throughout Chugach National Forest and the City of Cordova. The development of the seed source will be informed by lessons learned establishing native plants at the Glacier and Seward Ranger Districts. Having concentrated sources of single species (more concentrated than is found in natural ecosystems) is the most efficient means for harvesting and collecting seeds for re-vegetation projects (Kate Mohatt, USFS Ecologist, personal communication, February 24, 2011). A local source is also ideal because

plants will be tolerant of local climate conditions.

For example, *Calamagrostis canadensis,* or Blue Joint, is a grass commonly used by USFS crews any place where there might be erosion control needs, especially by riparian areas. A small area of maintained Blue Joint grass will produce a lot of seeds for use by USFS (Ken Hodges, USFS Biologist, personal communication, February 25, 2011). Furthermore, minimal levels of seed contamination are allowed in store-bought brands, so a local source of seeds is the only way to ensure a pure native seed source (Jeff Conn, personal communication, January 20, 2011).

To establish the parent crop, an area surrounding the pond will be planted with native plants well suited for the site and that are known to be tolerant of transplanting. Perennial plants from inconspicuous locations on the forest and from populations larger than 20 individuals will be collected for transplanting into treatment areas. We will also work with Cordova High School to engage students in gathering plants and seeds from approved locations in the forest in order to transplant into the treatment areas.

Treatment areas will be cared for year after year to increase the density of plants. In August or September, residents, youth and volunteers will be engaged in collection activities to harvest seeds from around Odiak Pond. These seeds will be dried on mesh trays and stored for later use.

These seeds will be used to reestablish native plant species in nearby areas where invasive plants have been pulled or treated. The Copper River Watershed Project has received funding to address invasive plants throughout the city, but currently there is no local seed source for re-vegetating treated areas. These seeds will also be used in other revegetation efforts initiated by USFS field crews.

The plants will be established in an area around Odiak Pond to receive stormwater that currently collects on the top of the grassy field, which is on top of the capped landfill. This will reduce the volume of water permeating into the landfill before it empties into the pond. Other funding has been secured for engineering and constructing plant habitat in a way to collect and filter water from the grassy field. USFS funding will only be used for establishing and enhancing parent crops for producing seeds. Funding in year 2 & 3 will allow for re-planting to ensure sufficient native plants are well-established, to provide opportunities for seed collection and storage training, and to maximize seed production.

Task 6: Ongoing Maintenance

This task falls outside what CRWP is proposing to the USFS RAC to directly support, but demonstrates the long-term commitment from the community to maintain this ecosystem in a natural state. The ongoing upkeep for the native plant habitat and the biofilter will be the joint responsibility of the City of Cordova Parks and Recreation Department and the CRWP. Parks and Recreation has expressed a commitment to maintaining the park in a way that helps sustain the integrity of the natural system. Parks and Recreation will also engage their Student Work Employment Program hire from Cordova High School in ongoing maintenance of the native plant habitat, allowing local students to have continued ownership over the health of this local aquatic ecosystem. CRWP and partners at the USFS and the Prince William Sound Science Center will continue to work with local K-12 classes, boy scouts, girl scouts, summer camps and other youth groups to maintain native plants and to monitor ecosystem indicators within Odiak

watershed. Not only will this help with long-term maintenance of this aquatic habitat, but it will provide ongoing educational experiences for students of all ages.

11. Types of Lands Involved?
State/Private/Other lands involved? ☒ Yes ☐ No **Land Status:** Public, Private
If Yes, specify: City of Cordova lands, private lands neighboring pond and stream

12. How does the proposed project meet purposes of the Legislation? (Check at least 1)
☐ Improves maintenance of existing infrastructure.
☒ Implements stewardship objectives that enhance forest ecosystems.
☒ Restores and improves land health.
☒ Restores water quality

13. Project Type a. Check all that apply: (check at least 1)	
☐ Road Maintenance	☐ Trail Maintenance
☐ Road Decommission/Obliteration	☐ Trail Obliteration
☐ Other Infrastructure Maintenance (specify):	
☒ Soil Productivity Improvement	☒ Forest Health Improvement
☒ Watershed Restoration & Maintenance	☒ Wildlife Habitat Restoration
☒ Fish Habitat Restoration	☒ Control of Noxious Weeds
☒ Reestablish Native Species	☐ Fuels Management/Fire Prevention
☐ Implement CWPP Project	☐ Other Project Type (specify):
b. Primary Purpose (select only 1): Watershed Restoration & Maintenance	

14. Identify What the Project Will Accomplish
Miles of road maintained:
Miles of road decommissioned/obliterated:
Number of structures maintained/improved:
Acres of soil productivity improved: 4.14 acres
Miles of stream/river restored/improved: 0.25 miles
Miles of fish habitat restored/improved: 0.34 miles
Acres of native species reestablished: 0.75 acres (in treatment areas), unable to determine area to be re-planted at this time because it will depend on size of areas treated for invasive plants.

Acres of hazardous fuel treatment
Miles of trail maintained:
Miles of trial obliterated:
Acres of forest health improved (including fuels reduction):
Acres of rangeland improved:
Acres of wildlife habitat restored/improved: 4.14 acres
Acres of noxious weeds controlled: 4.14 acres
Timber volume generated (mbf):
Jobs generated in full time equivalents (FTE) to nearest tenth. One FTE is 52 forty hour weeks: Project Coordinator, CRWP: 0.25 each year for 2 years, 0.1 for year 3 Engineer: 0.1 each for year 1
People reached (for environmental education projects/fire prevention): 45 students will directly be involved through the middle and high school science classes. 50 volunteers will be involved in restoration activities. All residents of Cordova (up to 5,000 in summer) and all visitors to Cordova (approximately 35,000 in 2009, Cordova Chamber of Commerce) have the potential to see and learn from this highly visible and accessible site
Direct economic activity benefit: salary of a part-time employee, purchasing of supplies
Other: This project will also create a valuable source of native plants that can be used for future re-vegetation projects on public and private lands. This project will also result in an accessible, visible living classroom to help residents and visitors better understand how to live as better neighbors to our surrounding ecosystems by supporting native plant populations, reducing stormwater contaminants, and identifying and controlling invasive weeds.

15. Estimated Project Start Date:	**16. Estimated Project Completion Date:**
April 1, 2011	May 31, 2014

17. List known partnerships or collaborative opportunities.

Kate Mohatt, **USFS** Plant Ecologist is excited to provide guidance and expertise for this project, in particular in the development of the native plant seed source and for the invasive weed removal efforts. Ken Hodges, USFS Fish Biologist, is interested in determining the effectiveness of biofilters for addressing potential effects of water contamination from the Cordova landfill, sedimentation, and stormwater runoff.

The **City of Cordova Parks and Recreation** department is pleased to support this project, and will provide valuable in-kind support for implementation, monitoring and long-term maintenance of the native plant habitat and additional stormwater vegetation projects developed under this proposal. This project helps them achieve goals laid out in their 2008 master plan, which include: establish water quality maintenance program for the pond; have

parks maintenance keep creek area clean and free of garbage; address drainage issues on grassy field; and keep the park looking as natural as possible.

United States Fish and Wildlife Service has committed $25,000 to support Odiak Watershed Restoration efforts. CRWP has submitted an additional proposal to the National Fish and Wildlife Foundation to support additional restoration efforts.
Cara Heitz, a **Cordova Middle and High School** science teacher is excited to engage her 7th and 10th grade science classes in continued ecosystem studies on Odiak Pond, and using native plants as the focus of plant anatomy and other ecology lessons.

CRWP also works with the **Prince William Sound Science Center, USFS, and the Native Village of Eyak** on other education and outreach activities, and this project will create a valuable, accessible outdoor classroom for engaging program participants in learning more about native plants, salmon and aquatic ecosystems in Southcentral Alaska.

18. Identify benefits to communities.

The proposed project will create a healthy pond and stream ecosystem within city limits, complete with colorful native plants. This will not only provide an aesthetically pleasing park that residents and visitors will pass when driving on the Copper River highway, but it will provide an accessible outdoor retreat that will allow residents and visitors to connect with the incredible fish, wildlife and plants native to southcentral Alaska. Furthermore, healthy natural environments help to create healthy communities by providing clean water and air for all living things.

Enhancing native plant habitat will provide a valuable source of seeds for re-establishing native plants throughout Cordova and other communities in the region. The native plant parent crop and improved watershed will also continue to offer an outdoor classroom for all Cordova students. Removal of invasive species may limit their spread, thereby reducing their impacts to native ecosystems and reducing costs to control them in the future. Piloting treatments for reed canarygrass growing in water will help identify effective treatments in this situation and allow for a rapid response to potential infestations on the Copper River Delta and other aquatic systems on USFS lands.

19. How does the project benefit federal lands/resources?

The direct benefits to federal land and resources include:

- Local native plant seed source for re-vegetation projects on USFS lands,
- Identification of effective treatments for reed canarygrass growing in aquatic systems,
- Determination of the effectiveness for using bioswales to reduce the effect of sediment and landfill or stormwater pollutants on anadromous waters.

Furthermore, CRWP and their partners believe that helping to connect people to how their actions impact surrounding ecosystems is necessary to ensure long-term sustainability and viability of all naturals resources, including federal lands. The proposed project will create an opportunity for community members to connect their actions to the health of a local ecosystem at a scale that is easier to see. By seeing how community actions affect an ecosystem the size of Odiak pond and stream, residents will better understand how human activities can impact fish and wildlife habitat and ecosystem functions at a greater scale. This

increased understanding will translate to improved stewardship of all natural resources, including federal land/resources.

Participants in this project will also have an increased understanding of the threats invasive plants pose to native ecosystems and the value of native plant species that can be used for landscaping and to filter stormwater run-off, both of which can translate to private lands. Removal of invasive species such as the highly invasive and easily spreadable orange hawkweed and reed canarygrass will help prevent their spread onto National Forest lands, thus preserving native species diversity and reducing costs to control them in the future. By improving stormwater filtration, we can improve the quality of water entering our local waterways, including those flowing through Chugach National Forest.

20. What is the Proposed Method(s) of Accomplishment? (check at least 1)	
☒ Contract	☒ Federal Workforce
☐ County Workforce	☒ Volunteers
☐ Grant	☒ Agreement
☐ Americorps	☐ YCC/CCC Crews
☐ Job Corps	☐ Stewardship Contract
☐ Merchantable Timber Pilot	☒ Other (specify): Local Students

21. Will the Project Generate Merchantable Timber? ☐ Yes ☒ No

22. Anticipated Project Costs
a. Title II Funds Requested:
b. Is this a multi-year funding request? ☒ Yes ☐ No

23. Identify Source(s) of Other Funding:

Sources of other funding include:

- Time donated by Cordova Master Gardener Neva Nolan, Alaska Department of Fish & Game biologist Sam Hochhalter, Cordova High School Science Teacher Cara Hetiz, and Prince William Sound Science Center educators and scientists.
- Time, supply and equipment use pledged by the City of Cordova's Parks and Recreation Department to establish and maintain garden and stormwater vegetation filters.
- $25,000 from United States Fish and Wildlife Service for hydrology assessment and biofilter.
- Requested $39,620 from National Fish and Wildlife Foundation for hydrology asseement and biofilter. Proposal submitted February 14, 2011.

24. Monitoring Plan (provide as attachment)

a. Provide a plan that describes your process for tracking and explaining the effects of this project on your environmental and community goals outlined above.

Objective 1: Pilot treatments for controlling and ideally eradicating reed canarygrass growing in the water.

Documenting presence and percent cover of weeds prior to and following eradication activities will assess the effectiveness of invasive weed removal efforts from within Odiak Pond and will allow for a comparison of the effectiveness of various treatments. We will also track the number of volunteers participating in eradication activities and residents inquiring about invasive plants on their private property to get an idea of how many community members are working to eradicate invasive plants in Cordova.

Objective 2: Pilot the use of native plants as a biofilter to ascertain effectiveness of using biofilters on USFS land to reduce effect of erosion and stormwater runoff from parking lots and roads to improve and maintain water quality.

Stormwater sampling will continue prior to and after establishing biofilters, in particular monitoring sediments entering the pond. CRWP will conduct these activities, using Alaska Department of Environmental Conservation approved methodologies (CRWP QAPP, 2009). Continued sampling will allow CRWP to identify any changes in sedimentation as a result of the restoration activities and help determine the effectiveness of biofilters for use on USFS lands.

Objective 3: Enhance native plant habitat to provide a local native seed source for future re-vegetation projects in Odiak Pond, throughout the community, and on Chugach National Forest.

The quantity of seeds produced each harvest will determine whether efforts to establish a native plan seed source are effective. CRWP will track the projects (type, scope, quantity of seeds used) where native seeds from the garden are used as well as document when other seed sources are used due to an insufficient local source. This will help project future needs for a local seed source and inform maintenance efforts. We will also track residents inquiring about native plant seeds and establishing native plants on their property to assess how often and to what extent the native plant seed source is leading to re-establishment of native plants throughout Cordova.

Objective 4: Improve fish and wildlife habitat in Odiak Pond and stream through restoration and clean-up activities.

Before and after pictures and tracking the amount and types of debris collected will help to document improvements to fish and wildlife habitat in Odiak Pond that result form clean-up activities. Photos will be collected by CRWP project coordinator, and debris will be tracked and collected by Cordova 7th grade students.

CRWP will track the number of students, teachers and community volunteers involved in all activities conducted for this project. For classroom groups, final projects will be assessed to identify changes in student's knowledge and attitudes as a result of participating in the "Odiak Watershed Restoration" project. This will help CRWP identify the effectiveness of this project at increasing stewardship of surrounding natural resources.

c. Identify total funding needed to carry out specified monitoring tasks (Worksheet 1, Item k):

$3,094.80 to support staff time and purchase resources for water quality testing

25. Identify remedies for failure to comply with the terms of the agreement.

If project cannot be completed under the terms of this agreement:

☒ Unused funds will be returned to the RAC account.

☐ Other, please explain:

Project Recommended By:	**Project Approved By:**
/s/ (INSERT Signature)	***/s/ (INSERT Signature)***
Chairperson	**Forest Supervisor**
Resource Advisory Committee	National Forest

Project Cost Analysis Worksheet

Worksheet 1

Please submit this worksheet with your proposal

Item **Please note: this is a two year budget**	*Column A* **Fed. Agency Appropriated Contribution**	*Column B* **Requested Title II Contribution**	*Column C* **Other Contributions**	*Column D* **Total Available Funds**
a. Field Work & Site Surveys	$881			$881
b. NEPA/CEQA				
c. ESA Consultation				
d. Permit Acquisition		$1,190.00		$1,190.00
e. Project Design & Engineering				
f. Contract/Grant Preparation		$1,190.00		$1,190.00
g. Contract/Grant Administration		$2,380.00		$2,380.00
h. Contract/Grant Cost		$50,000.00	$49,150.00	$99,150.00
i. Salaries	$5,000	$36,560.00	$16,358.00	$63,065
j. Materials & Supplies		$1,250.00	$7,630.00	$9,880
k. Monitoring		$6,147.00	$2,900	$9,047
l. Other 1. Travel 2. pro-rated share of CRWP expenses (rent, utilities, insurance, acctng.) 3. equipment, partner contribution		1. $2,100.00 2. $15,123.00	2. $3,261 3. $10,660	$30,429.59
m. Project Sub-Total		$115,940	$89,959	$200,425
n. FS Indirect Costs				
Total Cost Estimate		$115,940	$89,959	$205,899

NOTES:

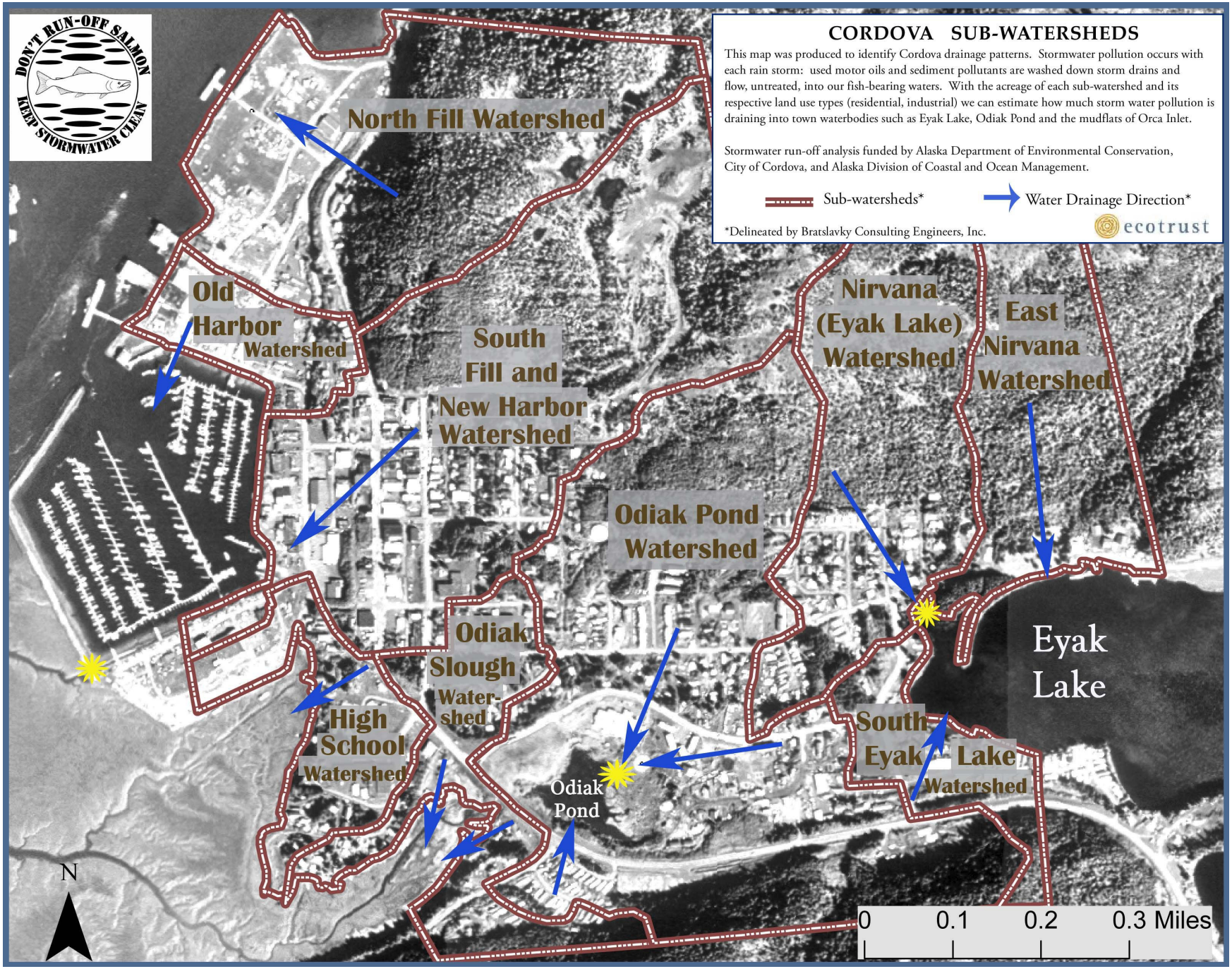
a. Pre-NEPA Costs

g. Includes Contracting/Grant Officer Representative (COR) costs. Excludes Contracting/Grant Officer costs.

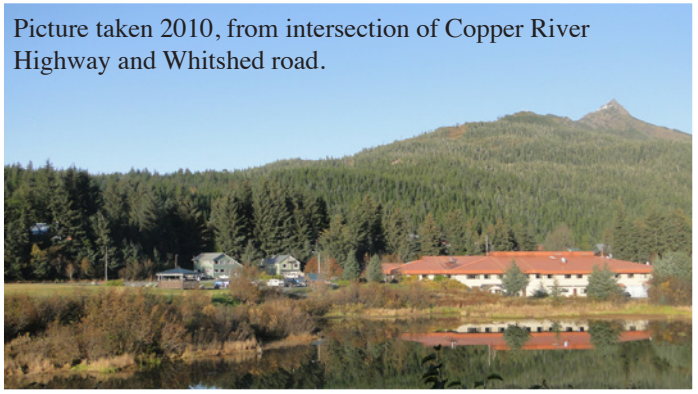
i. Cost of implementing project

l. Examples include overhead charges from other partners, vehicles, equipment rentals, travel, etc.

n. Forest Service indirect costs, including contracting/grant officer costs if needed.



Picture 1: This photo delineates Cordova's subwatersheds to show where Cordova stormwater ultimately ends up. The yellow stars label sites where CRWP collected grabsamples in 2009 in order to analyze stormwater for contaminants.



Picture 2: These aerial photos provided by the USFS demonstrate how land use within Odiak watershed has changed from 1974 to 2008, as well as how the pond itself is changing shape. The vegetated area on the east side of the pond seems to be expanding westward, filling in the pond.